# Swarup Srinivasan

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#### **EDUCATION**

University of Toronto, Honors Bachelor of Science

Sep 2018 - Dec 2021

Computer Science Co-op, Entrepreneurship Stream,  $4^{\text{th}}$  year

CGPA: 3.85 / 4.0 - Dean's List of Academic Excellence

Teaching Assistant: Software Engineering (CSCC01), Operating Systems (CSCC69)

World topper of Computer Science, Cambridge International A levels

#### **SKILLS**

Languages: Python, Java, C++, C, HTML, CSS, JavaScript, WebAssembly, SQL

• Frameworks: React, React Native, Vue.js, Flutter, Spring Boot, Pandas, Spark, TensorFlow, Keras, scikit-learn

Concepts: REST APIs, Multithreading, Agile methods (SCRUM, Test Driven Development), CI/CD

• Tools: Git, Jira, Amazon Web Services, Microsoft Azure Cloud, Google Cloud, Figma

# **EXPERIENCE**

#### **Amazon –** Software Development Engineer Intern

May 2021 - Aug 2021

- Design, implement and present features for multiple services to optimize querying for product information using Java Spring Boot, Vue.js, DynamoDB and serverless microservice architecture with AWS Lambda
- Automate AWS Cloud infrastructure setup for inter-service networking by writing CloudFormation scripts
- Maintain code compatibility with 100% code coverage by writing unit and integration tests using JUnit and Mockito

### BlackBerry - Software Developer Intern

Sep 2020 - Dec 2020

- Developed a tool using WebAssembly to compile and execute a large analysis engine in-browser efficiently
- Debugged and fixed critical issues in a multithreaded threat analysis engine used by 10+ applications using C#
- Increased vehicle simulation dashboard performance by 50% by simulating vehicle sensors in JavaScript
- Built data conversion tool with Apache Thrift RPC framework in Python for efficient data flow between 5+ services

#### University of Toronto - Machine Learning Engineer Intern

Jan 2020 - Apr 2020

- Led development of tool to predict job finances with 86% accuracy by using natural language processing to build machine learning models with TensorFlow and Python using Azure Databricks' distributed computing systems
- Optimized data pipeline by 67% by creating Spark ETL jobs in Python to process 1000+ docs of 500+ words each
- Decreased MySQL query time by 15 minutes by creating module to automate query generation

#### Google Developer Student Club - Software Developer

Jan 2020 – Jun 2020

 Increased accessibility to essential resources such as food banks and homeless shelters in a team of 4 by creating a cross-platform mobile app using Flutter to retrieve location data offline using SMS (GitHub)

#### **PROJECTS**

#### Fitmotiv - (GitHub, Devpost)

Jan 2021

- Fitness app to exercise with friends. Won best use of Google Cloud at Hack the North 2020++ out of 600 teams
- Technology: Express.js, CockroachDB, Swift, Google Cloud, Vonage API, IBM NLU API

#### Virtual Queue Manager - (Website, GitHub)

Jun 2020 - Aug 2020

- Web app to manage store gueues with store searching and analytics, real-time gueue monitoring, QR validation
- Technology: MongoDB, Express, React, Node.js, Google Maps API

# Escape Room Game – (GitHub)

Jun 2020 - Present

- 3D puzzle game with a ray-casting 'grabbing' system for players to move objects and escape the room
- Technology: C++, Unreal Engine

## Spotify API Clone – (GitHub)

Feb 2020

- REST API for a music player created using microservices to friend/follow users, like songs, create playlists, etc.
- Technology: Java, Spring Boot, MongoDB, Neo4j